

### **REMARKS**

Claims 1-3, 5-9, 11-27, 29-31, 35, 36 and 39-43 are currently pending in the subject application and are presently under consideration. Claims 1, 3, 8, 27, 29 and 31 have been amended as shown on pages 2-6 of the Reply. Claims 39-43 have been newly added. Claims 4, 32-34 and 38 have been cancelled. Additionally, applicants' representative thanks Examiner Nguyen for the teleconference of April 10, 2008 wherein rejection of claims under 35 USC 101 was discussed.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

#### **I. Rejection of Claims 1-9, 11-27, 29-36 and 38 Under 35 U.S.C. §101**

Claims 1-9, 11-27, 29-36 and 38 stand rejected under 35 U.S.C. §101 as being allegedly directed towards an invention that is an abstract idea as defined in the case *In re Warmerdam*, 33, F 3d 1354, 31 USPQ 2d 1754 (Fed. Cir. 1994). Withdrawal of this rejection is requested in view of at least the aforementioned amendments to independent claims 1, 8 and 29 and because the claims produce a useful, concrete, and tangible result.

The claimed subject matter is generally directed towards specifying and generating temporal order of events. According to an aspect of the invention, the event ordering system can receive temporal constraints, generate one or more event orderings, and select an optimal execution order based at least in part on execution system information. A system information component retrieves or receives information regarding a system such as such as available memory, cache coherency, data throughput, number of processors and the like. Upon receipt of system information from system information component, an ordering component can then analyze the data utilizing any one or a plurality of methods to select an optimal execution order including but limited to utility-based analysis employing technologies associated with facilitating inference and decision making under uncertainty and optimization of expected utility and/or minimization of expected costs. Thus, the claims generate a useful, concrete tangible result of an optimal event order for a given event sequence based on the executing system information. In addition independent claims 1, 8 and 29 have been amended to recite that the claimed components are executed by a processor or the claimed method steps are executed by

instructions stored on a computer readable medium. In view of at least the foregoing, withdrawal of this rejection is respectfully requested.

## **II. Rejection of Claims 1-9, 11-27, 29-36 and 38 Under 35 U.S.C. §102(b)**

Claims 1-9, 11-27, 29-36 and 38 stand rejected under 35 U.S.C. §102(b) as being anticipated by Buchanan *et al.* (US 5,515,490). Withdrawal of this rejection is requested since the reference fails to teach or suggest all aspects of subject claims.

A single prior art reference anticipates a patent claim only if it ***expressly or inherently describes each and every limitation*** set forth in the patent claim. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). ***The identical invention must be shown in as complete detail as is contained in the ... claim.*** *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicants' claimed invention relates to systems and methods for specifying and executing temporal order events. To this end, independent claim 1 and 8 recite *a constraint component that receives loose temporal constraints associated with a plurality of events, a system information component that receives execution system information; and an order component that determines an event order in accordance with the loose temporal constraints and selects an optimal event order based at least in part on execution system information, wherein the event order specifies the execution order of events and a display component that provides a plurality of object workspaces, the workspaces are user interfaces including at least one of a past, present and/or future space, the present space is an editable area; and a design component that temporally associates and/or disassociate objects in the editable area wherein non-associated objects order of execution is determined via utility-based analysis, respectively.* Buchanan *et al.* neither teaches nor suggests such novel aspects.

Buchanan *et al.* provides method and system for automatically producing a temporal layout for controlling the presentation of a multimedia document. A partial temporal layout, or schedule, is produced during a compile time phase of the method from duration information about the media items included in the document, and from the temporal relationships between

the media items, as specified by a document author. The temporal formatter positions media data items having predictable behavior in time according to the specified temporal relationships and using the specified durations, and creates an auxiliary temporal layout with unresolved times for each media data item or event therein having unpredictable behavior.

At page 9 of Office Action, Examiner incorrectly asserts that Buchanan *et al.* substantially teaches *a display component that provides a plurality of object workspaces, the workspaces are user interfaces including a past, present and future space*, with respect to independent claim 8. The cited portion of the reference (Buchanan *et al.*) provides for a display area for representing an exemplary document to an author in a schematic and graphic representation. An authoring subsystem provides a temporal view of a media item and an interactive document editor to create and edit media items. A document editor provides for adding media items to a document, placing temporal constraints between events to specify their temporal ordering and adding list of operations to events to control the presentation behavior of a media item (See, Col. 20, lines 45-65). Hence Buchanan *et al.* only provides for a display area for displaying temporal view of a media item and an interactive document editor to edit media items by authors. However, Buchanan *et al.* nowhere teaches or suggests *a display component that provides a plurality of object workspaces, the workspaces are user interfaces including at least one of a past, present and/or future space*. Through this feature, the claimed subject matter facilitates providing a context and serving as navigational aids for a user during application development. The past and future spaces are also employed to facilitate specification of temporal constraints (See, Specification, page 10, line 11-page 11, line 10).

At page 9 of the Office Action, the Examiner again incorrectly asserts that Buchanan *et al.* substantially teaches that *non-associated objects order of execution is determined via utility-based analysis*, with respect to independent claim 8. The cited portion of reference (Buchanan *et al.*) provides for automatically temporally formatting the presentation of data components that have temporal relationships among them. These data components are called as a unit called a 'time-dependent document' and are a series of discrete components related in time. The term 'series' includes data components that are partially or wholly concurrent in time, as well as those that do not overlap in time and are sequential (See, Col. 9, lines 49-65). Hence Buchanan *et al.* only provides for temporally formatting of data components that have temporal relationship among them and more particularly only those data components which are either concurrent in

time or sequential. Buchanan *et al.* provides for creating auxiliary temporal layout in addition to main temporal layout for media data item or event having unresolved times and unpredictable duration or occurrence. Hence Buchanan *et al.* provides for keeping two different layouts or schedules and keeps data items or event having unresolved time and duration in a separate auxiliary layout. However Buchanan *et al.* does not contemplate that *non-associated objects order of execution is determined via utility-based analysis*. Through this feature, the claimed subject matter facilitates optimizing the execution order of a series of events by performing utility based analysis. Hence a user can specify a series of constraints loosely. Thus, any number of orderings for events can satisfy the constraints. Systems can choose one of the orderings as the favored ordering. For example, one system could choose to optimize the ordering of events for maximum performance. To accomplish this goal, the system utilizes heuristics or a pool of knowledge about the executing system of which a user who specified the constraints does not know. For example, the system takes into account cache coherency, data throughput, number of number of processors, and available memory.

At page 10 of the Office Action, the Examiner again incorrectly asserts that Buchanan *et al.* substantially teaches a *query component that searches for events that satisfy a query, and displays objects associated with the events in temporal order*, with respect to dependent claim 20. The cited portion of reference (Buchanan *et al.*) provides for flexibility metric specifying an expense parameter used by a formatter to select the ‘best’ representation for each media segment in a given situation. The flexibility metric permits the scheduler to determine the ‘best’ way to adjust the durations of one or both of first and second temporally adjacent media items. The author of the time-dependent document specifies “cost” for each media item that define a penalty for deviating from the optimum duration specified for a media item (See, Col., 12-13, lines 53-67). Hence Buchanan *et al.* only provides for flexibility metric specifying an expense parameter used by a formatter to select the ‘best’ way to adjust the durations of one or both of first and second temporally adjacent media items. However Buchanan *et al.* does not contemplate a *query component that searches for events that satisfy a query, and displays objects associated with the events in temporal order*. Through this feature, the claimed subject matter facilitates providing context for the present work. The user can thus focus on just a subset of the objects he cares about, and the query component can then automatically generate the context for the work.

In view of at least the foregoing, it is readily apparent that Buchanan *et al.* fails to teach or suggest all aspects of the claimed invention. Accordingly, it is respectfully requested that this rejection of independent claims 1, 8, 27 and 29 (and the claims that depend there from) should be withdrawn.

### **III. New Claims 39-43**

Newly added claims 39-43 emphasize novel aspects of the invention discussed *supra* in connection with claims 1, 8, 27 and 29. Support for these claims can be found in the specification as filed at pages 9, 13 and 14. Accordingly, these claims are patentably distinct over the art of record for at least the same reasons as are claims 1, 8, 27 and 29.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP543US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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